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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,415	08/21/2001	Brendan J. Kitts	VIGN1160-1	8220

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EXAMINER
ZHOU, TING

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/934,415	KITTS, BRENDAN J.
		Examiner	Art Unit	
		Ting Zhou	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 July 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>23 July 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/20/04</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The amendment filed on 23 July 2004 have been received and entered. Claims 1-

17 are pending in the application.

Claim Objections

2.   Applicant is advised that should claim 10 be found allowable, claim 11 will be

objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims

in an application are duplicates or else are so close in content that they both cover the

same thing, despite a slight difference in wording, it is proper after allowing one claim to

object to the other as being a substantial duplicate of the allowed claim. See MPEP

§ 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application
> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
> title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1-5 and 10-17 are rejected under 35 U.S.C. 102(e) as being anticipated by

Chi et al. U.S. Patent 6,509,898.

Referring to claims 1, 12, 13 and 14, Chi et al. teach a system and method

comprising a general purpose computer having memory capable of operating pursuant to

instructions comprising an algorithm (column 5, lines 46-67 and further shown in Figure

1), wherein the algorithm further comprises the steps of loading the interaction metric

between items (parent-child, sibling-sibling and usage information between nodes)

(column 7, lines 36-45) into memory, optimizing the placement of nodes and edges

(links) pursuant to the interaction metric (using the interaction metric, or usage

information to make layout decisions in order to place the nodes and links to maximize

screen real estate, for example) (column 7, lines 36-45 and column 8, lines 27-53) and

generating a graphical representation of the nodes and edges with corresponding

interaction metrics (defining relationships between elements, such as parent-child

relationships and usage information to optimize the layout of the display according to the

relationships, i.e., displaying the highest used nodes farthest apart from each other under

the parent node so that they have the most growth space) (column 2, line 16 – column 3,

line 12, column 7, lines 36-45 and column 8, lines 28-52).

Referring to claims 2 and 15, Chi et al. teach the interaction metric being a

conditional probability (usage information such as frequency of use) (column 2, lines 36-

44 and column 8, lines 28-38).

Referring to claim 3, Chi et al. Chi et al. teach the interaction metric being based on correlations between items (parent-child and sibling-sibling relationships amongst the elements) (column 8, lines 28-32).

Referring to claims 4 and 16, Chi et al. teach the interaction metric comprising at least one of a cross-elasticity and cross-correlation between two different variables (the parent-child and child-child relationships show the cross-correlation between the two items (column 3, lines 1–11 and column 8, lines 28-52).

Referring to claims 5, 10, 11 and 17, Chi et al. teach the optimum placement of nodes and edges adheres to at least one of minimizing number of crossings between edges, distance between linked nodes is minimized, graph area is minimized, horizontal and vertical symmetries are maximized, and an angle between two edges onto a node is greater than or equal to a predetermined constant (spacing the root nodes farthest apart from each other so that the children nodes can be placed directly under the root nodes, therefore minimizing the distance between linked nodes and the number of crossed relationship lines) (column 3, lines 1-11 and column 8, lines 39-52).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et

al. U.S. Patent 6,509,898, as applied to claims 1, 2, 4 and 5, and further in view of

Weinberg et al. U.S. Patent 6,144,962.

Referring to claims 6-9, Chi et al. teach all of the limitations as applied to claims

1, 2, 4 and 5 above. Specifically, Chi et al. teaches the display of node-link relationships

for elements based on interaction metrics (defining relationships between elements, such

as parent-child relationships and usage information) (Chi et al.: column 2, lines 16-46,

column 7, lines 36-45 and column 8, lines 28-52). However, Chi et al. fail to explicitly

teach if the interaction metric is below a predetermined threshold the interaction between

at least one of the below-threshold item and an edge is not graphically displayed.

Weinberg et al. teach displaying node-link relationships for elements based on interaction

metrics (parent child relationships) (Weinberg et al.: column 2, lines 32-48). In addition,

Weinberg et al. further teach not displaying the interaction if the interaction metric is

below a predetermined threshold (only displaying links that are above a minimum

activity threshold level) (Weinberg et al.: column 28, lines 56-67 and column 9, lines 1-

4). It would have been obvious to one of ordinary skill in the art, having the teachings of

Chi et al. and Weinberg et al. before him at the time the invention was made, to modify

the method and system for displaying items based on their interaction of Chi et al. to

include displaying only the interactions that are above a certain threshold, as taught by

Weinberg et al. One would have been motivated to make such a combination in order to

avoid cluttering the display space with unimportant or non-relevant information,

providing more space and focus for important information.

Response to Arguments

5.   Applicant's arguments filed on 23 July 2004 have been fully considered but they are not persuasive.

6.   It is noted that the applicant's amendments to the drawings and specifications have overcome the drawing and specification objections cited in the previous non-final office action, mailed on 20 April 2004.

7.   With regard to claim 1, the applicant asserts that Chi does not disclose displaying interaction data between items, loading an interaction metric between items, optimizing placement of nodes and edges pursuant to the interaction metric or generating a graphical representation of the nodes and edges with corresponding interaction metrics. The Examiner respectfully disagrees. An object of the Chi et al. reference is to display the representation positions of nodes or links according to their importance so that a viewer can understand the importance of a node or link based upon its position in the displayed representation (column 2, lines 26-36). In one example layout, Chi et al. teach positioning nodes to optimize screen real estate by placing the highest-used nodes farthest apart from each other so they have the most growth space and spreading sibling nodes out on links which emanate from their parent in a tree layout (column 2, line 62 – column 3, lines 11 and column 8, lines 39-52). Therefore, the layout algorithm orders the nodes, or items, according to their usages from high to low, thus revealing their relationship between one another, i.e. whether one node is more popular, or has higher usage, than another node (column 8, lines 53-55); the nodes can then be laid out optimally in terms of

screen real estate according to their relationship with each other (parent-child and usage comparison) by placing the most popular, or highest used nodes farthest apart from each other under the root parent node (column 3, lines 1-11 and column 8, lines 27-52). As a result, from viewing the tree layout, users can easily see the parent-child, sibling-sibling and higher-lower usage relationships between the nodes on the displayed tree layout. Therefore, it can be seen that Chi et al. anticipates the subject invention.

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-4058.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

9 November 2004

RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173